

# KATMAI

## National Monument

One bundred miles of ocean bays, fiords, and lagoons, backed by a range of glacier-covered peaks and volcanic crater lakes. Behind these lie an interior wilderness of forests, great lake chains, and the bistoric Valley of Ten Thousand Smokes.

KATMAI NATIONAL MONUMENT, on the Alaska Peninsula, was established in 1918 to include the site of a recent great volcanic eruption and the Valley of Ten Thousand Smokes. The monument was enlarged in 1931 in order to protect some of the great game animals of the Alaska Peninsula, particularly the brown bear. This addition also took in near the volcanic area, a series of large and beautiful lakes. In 1942, the islets off the seacoast were added to protect the rich marine life. Katmai National Monument now has more than 4,200 square miles. The National Monument is an area remote from all civilization and, prior to the airplane, access was difficult.

In the days when everyone traveled by boat, the town of Kodiak, on Kodiak Island, was the nearest regularly used port. From here visitors to the native village of Katmai were transported in small boats across the 100-mile Shelikof Strait.

The trail from Katmai village, on Shelikof Strait, to two villages near Lake Naknek in the interior was the most important route of travel across the peninsula in the 19th century. This trail, pioneered by the natives of

the area, was used by the Russians in transporting their supplies from Kodiak on the south side of the peninsula to the larger rivers entering the Bering Sea. Although laborious, this route was much safer than sailing around the storm-lashed peninsula and braving the Bering Sea.

#### Volcanic Activity

The warning came as a series of violent earthquakes. At a place now called Novarupta Volcano, about half way between the villages of Katmai and Sovonoski and 20 air-line miles from each, unmeasurable forces were building up to one of the greatest explosions in history. Five days after the first earthquake shock, on June 6, 1912, the ground was torn apart by a thunderous blast that spewed forth masses of pumice and rock fragments. And that was only the first eruption.

Then white-hot ash poured from the same vent and from nearby fissures. Within minutes, 2½ cubic miles of ash was expelled, sweeping down the adjacent valley like a gigantic tidal wave. Trees on the valley sides above the glowing, moving ash were snapped

The National Park System, of which this area is a unit, is dedicated to conserving the scenic, scientific, and historic heritage of the United States for the benefit and enjoyment of its people.

off and carbonized by the blasts of scorching wind. More than 40 square miles of the valley floor was buried beneath the ash to depths as great as 700 feet.

Hot gases—mostly steam derived from the buried streams and springs—began to rise to the surface through countless small holes and cracks in the beds of ash. Four years later, Dr. Robert F. Griggs, leader of several National Geographic Society expeditions to the area, and Lucius G. Folsom, his associate, discovered this ash-buried valley. In Dr. Griggs' words, "The whole valley as far as the eye could reach was full of hundreds, no thousands—literally, tens of thousands—of smokes curling up from its fissured floor." He named the place the Valley of Ten Thousand Smokes.

At or about the same time that Novarupta was belching forth the pumice and scorching ash, the entire top of Mount Katmai Volcano, 6 miles to the east, collapsed. The peaked mountain suddenly became a chasm almost 3 miles long and 2 miles wide. There can be little doubt that at some depth the lava conduits under Katmai and Novarupta are connected; almost all the pumice and ash is-

sued from Novarupta, but it was the top of Katmai that collapsed.

Professor Garniss Curtis, of the University of California, Berkeley, basing his interpretations on field studies made in 1953 and 1954, has written a graphic description of this awesome display of the powerful forces within the earth in *Landscapes of Alaska—Their Geologic Evolution* (University of California Press, Berkeley and Los Angeles, 1958). He describes the events as follows:

"A column of molten andesite, which had been lying quietly in the conduit beneath Mount Katmai, suddenly found access through newly created fissures to the erupting column of rhyolite beneath Novarupta, 6 miles away. . . . And while the molten andesite drained from the conduit under Katmai to be expelled at Novarupta, nearly 5,000 feet lower, the unsupported top of the mountain collapsed into the void."

During the short space of 60 hours, more than 7 cubic miles of volcanic material was hurled into the atmosphere and stratosphere, and some of the ejecta were carried by winds to all parts of the Northern Hemisphere. This

Novarupta crater, source of the great eruption of 1912.





was among the two or three greatest eruptions in history, but not one human life was lost.

In 1919, the National Geographic Society sent another expedition to the Valley of Ten Thousand Smokes. It was learned that the temperature of some of the fumaroles was becoming lower and that many had died out. Around the edge of the ash, some moss and algae were appearing. By 1950, the number of smokes had dwindled to fewer than 100.

Today, the Valley of Ten Thousand Smokes is becoming a valley of change, as hardy pioneer plants struggle for reestablishment in the nearly sterile ash. And so it continues to be an area of absorbing interest.

Recent activity of Mount Trident produced new lava flows in 1953 and 1957.

#### Forests and Wildlife

The monument is the meeting ground of two life zones: The Hudsonian, characterized by white spruce forest; and the Arctic which is distinguished by dense stands of reedgrass (*Calamagrostis*) that reach a heighten of 5 to 7 feet.

This area contains the westernmost natural stands of spruce in southwestern Alaska. The forest is encroaching upon the grasslands on the west and south. Along the coast, spruce extends in patches to Hallo Bay, where a stand of considerable extent forms the outpost. In the interior, the main spruce forest surrounds the Iliuk Arm, the eastern end of Naknek Lake, and part of Brooks Lake.

Within the spruce forest are balsam poplars, paper birches, and cottonwoods. On the hills and knolls are heaths, blueberries, dwarf birches, and crowberries.

Most prominent of the mammals is the Alaskan brown bear. Weighing 1,000 to 1,800 pounds, it is the largest carnivore in the world. This bear is seen during the summer along the stream banks or out in the stream near the channels, fishing for salmon. At other seasons, it is largely a vegetarian, cropping grass like a cow on the open slopes or digging for roots and the nests of mice and ground squirrels.

Brown bears usually are nonbelligerent, but you are warned emphatically that exceptional individuals may become hostile if approached, particularly in remote areas where they are unaccustomed to humans.

Moose are fairly common and often can be spotted from an airplane.

Other species that have been observed in the monument are the red fox, wolf, Canada lynx, otter, mink, marten, Arctic weasel, beaver, varying hare, lemming, ground squirrel, and wolverine.

Ducks of many species are common, and whistling swans nest in the rivers and swamps. Loons, grebes, gulls, and shore birds are plentiful in the lakes region and along the seacoast. Bald eagles nest commonly on various rock pinnacles by the sea. Spruce grouse and two species of ptarmigan are present.

#### Fishing

Rainbow and lake trout, dolly varden, grayling, whitefish, northern pike, and red salmon abound, so that fishing in the lakes and streams is a favorite pastime for most visitors.

Fishing regulations are subject to change from year to year and the limit for a day's



Bald eagles nest along the seacoast.

catch may vary. Learn the limit and the regulations before fishing in monument waters. Fishing in any way other than with hook and line, and with rod or line held in the hand, is prohibited. Special regulations apply to native Aleuts and Eskimos residing in the area. A fishing license is not required in the monument.

The red salmon spawns in the monument, and the sight of this magnificent fish, fighting upstream to spawn is one of the region's greatest attractions. On the Brooks River the salmon leap the 6- to 8-foot falls, and you will be amazed at the vitality and strength of these fish. Occasionally, silver, king, and humpbacked (pink) salmon are seen in the streams.

#### Camping

You may camp anywhere in the monument upon receiving a fire permit from either the ranger in charge or from the Superintendent, Mount McKinley National Park, McKinley Park, Alaska. A limited supply of food may be purchased at Brooks River Camp.

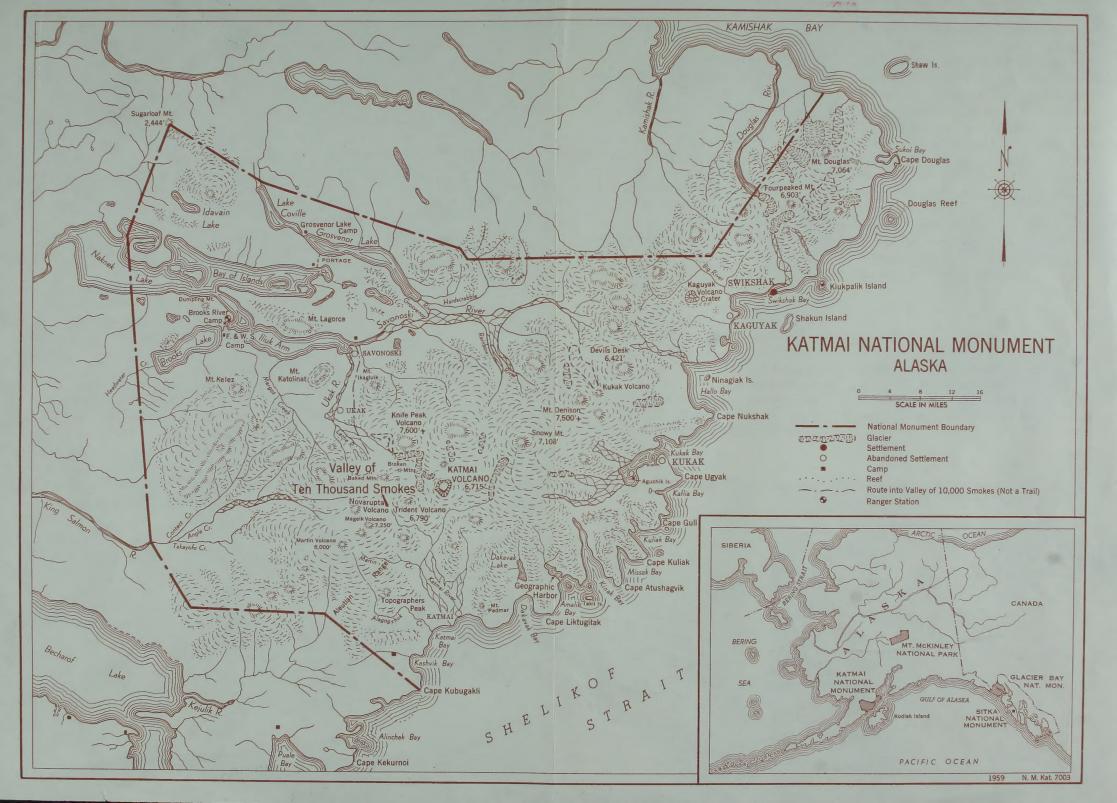
Two concessioner tent camps are operated in the monument from about June 1 to October 1 by Northern Consolidated Airlines—one on Lake Naknek at Brooks River and one on Grosvenor Lake. Tents have wooden frames and floors and oil heaters.

A scene on Lake Grosvenor.



Fumaroles in the Valley of Ten Thousand Smokes.





Beds with sleeping bags are furnished, and there is a mess hall in each camp.

Information on rates and reservations can be obtained from Northern Consolidated Airlines at Anchorage, Alaska.

### General Information

Since Anchorage, the nearest major city, is 200 miles away over virtually impassable terrain, the only easy way to reach this primeval wilderness from outside is by air. At least three commercial airlines serve the King Salmon air terminal, which is only 35 miles from Brooks River Camp. Information regarding them may be obtained from ticket agencies located in major United States cities. From King Salmon, bush planes on floats make regular flights to the two tent camps within the monument.

Numerous interesting trips on Naknek Lake are possible by small boat. By making a short portage with a canoe, extended trips are possible on Grosvenor and Colville lakes. Traveling by small boat, however, demands extreme caution as violent windstorms often arise without warning.

By float plane, when the weather is favorable, you can fly above the infinite variety of bays, fiords, lagoons, and waterfalls along the coast or circle over steadily smoking Martin Volcano. You can see from the air the jade-green lake that now occupies the crater of Mount Katmai, or into the mysterious blue depths of Kaguyak Crater Lake.

You can fly over the desert-like floor of the Valley of Ten Thousand Smokes and the deep winding canyons cut in its floor.

The region has frequent and violent winds and rainstorms, known as williwaws. The sky is clear or partly cloudy only 30 to 40 percent of the time, as there are often long periods of wet weather. However, the days and nights are warmer than in the interior of Alaska, and heavy clothes are not often needed in the summer.

#### Mission 66

Mission 66 is a program designed to be completed by 1966 which will assure the maximum protection of the scenic, scientific, wilderness, and historic resources of the National Park System in such ways and by such means as will make them available for the use and enjoyment of present and future generations.

#### Administration

Katmai National Monument is administered by the National Park Service of the United States Department of the Interior.

A park ranger is stationed at the monument from about June 1 to September 15. He has headquarters near the mouth of the Brooks River on Lake Naknek.

The superintendent of Mount McKinley National Park, whose address is McKinley Park, Alaska, is in charge of the monument.



UNITED STATES
DEPARTMENT OF THE INTERIOR

Fred A. Seaton, Secretary

NATIONAL PARK SERVICE Conrad L. Wirth, Director



Cover: Trident Volcano erupting, February 1953.